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IMPLICATIONS FOR TRADE AND DEVELOPMENT OF RECENT PROPOSALS TO SET UP A GLOBAL FRAMEWORK FOR ELECTRONIC COMMERCE

Report by the UNCTAD secretariat

Executive Summary

This document examines some of the elements presented in recent proposals by the European Union, Japan, the United States and the OECD secretariat, for a global framework for electronic commerce and their potential consequences for trade and development. In order to facilitate the identification of common themes in the proposals, the issues raised by them are considered under the following headings: financial issues, (including fiscal aspects), legal issues (including intellectual property, security and market access aspects) and access for small and medium sized enterprises.

The document concentrates on identifying the opportunities for developing countries (and their enterprises) to benefit from the proposals if they are implemented. Priorities are identified which could enable such countries to maximize the benefits and limit the risks associated with the proposals. The main findings are: **(1)** further evaluation is needed of the potential impact of a duty-free Internet trade zone on trade and development; **(2)** developing countries should be offered greater support in the area of capacity-building and training for electronic commerce; and **(3)** government policies regarding the provision of a supportive legal and regulatory framework for telecommunications and information services will have a direct impact on how measures taken at the international level will affect their own trade performance and the competitiveness of their enterprises in electronic markets.

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Background[1]

1. Trade among nations is on the threshold of a fundamental transformation as a result of advances in information and telecommunications technology. The ability of the Internet to bring together distant parts of the world in a global electronic market place and information exchange offers far-reaching benefits to developing and industrialized economies alike.

2. Today, there are an estimated 148 million Internet users, with double digit growth rates in many emerging economies. There are some 37 million Internet hosts worldwide, facilitating a dramatic increase in the volume of trade and economic information available online. Connectivity has significantly improved in many parts of the developing world - for example, nearly every capital city in Africa enjoys some level of Internet access today. However, there are still significant disparities in the level of Internet penetration across regions, which can have profound implications on an individual country's ability to participate in the global electronic market place.[2]

3. The overall level of electronic commerce, or business transactions conducted via the Internet and private commercial networks, was estimated at US$ 8 to 9 billion in 1997. Researchers have forecast that this figure could rise to as much as US$ 400 billion by 2002, as businesses and consumers throughout the world expand their online commercial activities. This dramatic growth in electronic commerce is being driven by the marketing and cost reduction benefits that many businesses are realizing through this new medium.

4. To help ensure that the benefits of the Internet and online commerce continue to expand to all parts of the global economy, a number of Governments and intergovernmental organizations have put forward proposals to create a global framework for electronic commerce. Although there are differences between the various strategies presented, a consensus is emerging in the United States, Europe and Japan that the private sector should take the lead role in developing this global framework. International coordination in the adaptation of existing commercial laws and regulations will be necessary in order to provide a consistent and transparent legal environment for electronic commerce. However, self-regulation by the private sector is being encouraged as an alternative to increased government regulation in areas such as standard setting, information security and content management.

5. An aspect that is not addressed in the proposals is the need to ensure that the development dimension is an integral and positive part of the electronic commerce debate at an early stage. For electronic commerce to become a truly global instrument of growth and prosperity, inequalities in access, connectivity, cost, financial and human resources need to be properly identified and swiftly addressed by the international community. This document is a first step in that direction.

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[1] This document is being published simultaneously on the UNCTAD website (http://www.unctad.org). Many of the references to institutions, enterprises, documents and so on are identified as "hyperlinks" in the electronic version of the document, so that the user can click on the highlighted text to go directly to the relevant website.

[2] This topic is addressed in document TD/B/COM.3/16 ("Policy issues relating to access to participation in electronic commerce")

Section I - MAIN ISSUES

A. Introduction: four converging proposals

6. A number of individual Governments and intergovernmental organizations have taken steps to address the policy issues relating to the establishment of a global framework for electronic commerce. The following analysis focuses on proposals made by the United States, the European Union, Japan and the OECD. The first three have put forward policy proposals concerning electronic commerce in areas such as customs and taxation, development of the legal framework, and market access issues. The OECD is conducting extensive research into a number of policy issues relating to electronic commerce and has published a number of policy guidelines.[3]

7. It should be noted that the various proposals were not developed under common terms of reference and therefore do not address all the same issues at the same level of detail. Nevertheless, in general a strong consensus emerges from the four proposals that the private sector should take the lead role in the development of the Internet and electronic commerce. Also, self-regulation by industry should be the norm unless a clear need for government action or international agreements is identified. It is generally recognized that there is a need for a simple, transparent and predictable legal environment for electronic commerce on a national and international level and that Governments should avoid placing undue restrictions on electronic commerce in order to avoid competitive distortions.

8. According to these proposals, cooperation among Governments, using established venues for negotiation such as OECD, WTO, WIPO and UNCITRAL, should be actively pursued in order to ensure participation by Governments in establishing the necessary agreements and model legislation to buttress the overall framework. The private sector should have a say in how the present legal environment should be adapted to meet the new imperatives posed by electronic commerce. Changes to the legal and institutional framework relating to electronic commerce should be technology-neutral to avoid discrimination and encourage inter-operability.

9. The various policy papers published by the four actors mentioned above set out a number of financial proposals (e.g. on customs, taxation, electronic payments), legal proposals (e.g. on a commercial code, intellectual property, copyright and trademark, privacy and security) and market access proposals (e.g. on telecommunications infrastructure, information technology, content and technical standards). They also address issues related to human resources[4] and small and medium-sized enterprises (SMEs).

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[3] Other organizations which have weighed in on particular issues or on the regional dimensions of electronic commerce include the World Trade Organization (WTO), the World Intellectual property (WIPO), the United Nations Economic Commission for Europe (UNECE-CEFACT), the International Trade Center (ITC UNCTAD/WTO), the International Telecommunication Union (ITU), the International Chamber of Commerce (ICC), the United Nations Commission on International Trade Law (UNCITRAL), the Inter-American Development Bank (IDB), the International Bank for Reconstruction and Development (IBRD), the Asia-Pacific Economic Cooperation Forum (APEC), the G-7, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Organization for Standardization (ISO), among others.

[4] This aspect is addressed in document TD/B/COM.3/EM.6/2 "Training in the area of electronic commerce: needs and possibilities"

B. Financial issues

1. Customs and taxation in electronic commerce

10. Across the four proposals, there is agreement that the present tariff free environment for goods and services delivered by the Internet and other electronic channels should be perpetuated, but this does not extend to physical goods purchased through the Internet and delivered by traditional methods, where existing tariff rules should continue to apply.[5]

11. The taxation of electronic commerce, in "virtual goods", such as information and services, and physical goods is a complex issue. The position of the United States is that no new taxes should be imposed on electronic commerce, and that taxing jurisdictions should coordinate their activities to ensure that taxation systems are simple to administer and do not hinder or distort commerce.

12. The European Union has traditionally levied VAT on virtual as well as physical goods but is evaluating the definition of the current tax systems (both direct and indirect) within member States on issues of definition, control and enforceability. All four actors share the position that fairness in the taxation of electronic goods as compared with that of physical goods (i.e. "tax neutrality") is essential, and that the OECD (and the European Union for European countries) should be a key forum for the discussion of policy issues relating to international taxation. The OECD has already begun a programme of policy research on taxation issues in electronic commerce.

2. Implications of new electronic payment methods

13. Electronic payment is an area of emerging technology that has potentially significant ramifications in the areas of monetary policy and global banking. There is a recognized need to monitor closely developments in this area, although none of the four actors has proposed any increase in government regulation as yet. However, the United States and others have recognized that future action may be necessary to ensure the long term security and soundness of electronic payment and international financial systems.[6]

C. Legal Issues[7]

1. Development of a commercial code for electronic commerce

14. All four actors recognize the need to adapt the current framework of commercial codes and legislation governing commercial transactions to address the complexities introduced by international electronic commerce. There are numerous efforts under way to establish the legal validity of electronic

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[5] This point has been reflected in the WTO Ministerial Declaration of May 1998 in which Ministers agreed that, at least until the next WTO Ministerial Conference of 1999, members would "continue the current practice of not imposing customs duties on electronic transmissions"

[6] Some of these payment technologies are further described in Section II A below.

[7] A recent UNCTAD document entitled "Electronic commerce: Legal considerations" (UNCTAD/SDTE/BFB/1) has identified the main issues surrounding the legal aspects of electronic commerce. Hence this section will limit itself to the legal issues which are addressed in the four proposals mentioned.

documents and the acceptability of digital signatures and other authentication procedures used in commercial transactions, although legislation is still pending in many countries. Japan and the United States stress the need to ensure the admissibility of electronic data in dispute resolution, which is also being addressed in the alternative dispute settlement systems of the ICC. The European Union emphasizes that there should be no regulation for regulation's sake, that regulations should be based on all Single Market freedoms, and that regulations must take account of business realities and must achieve their objectives effectively and efficiently. The European Union also recently adopted a directive on contracts negotiated at a distance which will address electronic commerce transactions.

15. The UNCITRAL Model Law on Electronic Commerce is cited as an example of international cooperation in establishing a common legal framework which should be supported and pursued in other areas as well. Also, the ICC is developing a database of electronic commerce terminology which can be incorporated into commercial contracts used in electronic commerce.

2. Intellectual property protection

16. The two recent international treaties concluded under WIPO (the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty) have received broad support, and the United States, the European Union and Japan have pledged to pursue their prompt ratification. The implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement) is also encouraged, particularly by the United States and the EU. In addition, the European Union is in favour of concluding another WIPO treaty on the legal protection of the substantial investment made in databases. Japan recognizes the difficulty of distinguishing between the private use and the commercial use of digital content and the need to balance intellectual property protections against the "right to knowledge" of individuals, as well as the need to avoid the obstruction of content distribution by excessive regulation.

3. Trademarks and domain names

17. Although the Domain Name System (DNS) of assigning website names has so far been dominated by the United States, as the pioneer of the Internet, it is broadly recognized that a new market-driven governance arrangement with broader international participation is essential. As domain names are not yet fully protected under most trademark regimes, there is scope for misuse by external parties which can dilute the value of the trademark. The United States, in particular, is supporting the development of international agreements extending full trademark protection to domain names.

4. Privacy on the Internet

18. The United States has produced the following two sets of principles on the privacy of personal information and activities relating to electronic commerce:

(a) Consumers should expect that data-gatherers will:
  (i) Inform consumers what information they are collecting and how the intend to use such data; and
  (ii) Provide consumers with a meaningful way to limit use and re-use of personal information

(b) Personal information acquired, disclosed and used online should:
  (i) Respect the individual's right to privacy;
  (ii) Not be altered or destroyed; and
  (iii) Be accurate, timely, complete and relevant for the purposes for which it is provided and used.

19. The United States is currently supporting private-sector efforts to implement self-regulatory privacy regimes, but recognizes that it may have to intervene in certain areas (e.g. child protection) if self-regulatory measures are not sufficiently rigorous.

20. Japan has also endorsed the development of a private-sector-driven regime for privacy protection, although it recognizes that legislative solutions may be necessary in certain instances. The Japanese Government has also published guidelines for the protection of personal data and has undertaken initiatives to educate online users on privacy issues, encourage voluntary measures by businesses to protect personal data and promote technologies which enhance privacy protection online. Japan also endorses international cooperation to ensure worldwide consistency in privacy protection.

21. The European Union has taken a more hands-on approach to privacy protection and has adopted a number of directives on the processing and transmission of personal data. It will soon implement a directive which prohibits the transfer of personal data to countries that, in its view, do not extend adequate privacy protection to European Union citizens. This directive is raising some concern among the European Union's trading partners, particularly the United States.

22. The OECD publication *Guidelines on the Protection of Privacy and Transborder Flows of Personal Data* recommends that cross-border flows of personal information should not be restricted, except when the destination country does not substantially observe the guidelines or where the re-export of such data would circumvent domestic privacy legislation.

5. Security on the Internet

23. Efforts are under way in a number of countries to provide a framework for the development of market-based standards, public key management services and key-recoverable encryption products. There is broad agreement that the online environment should allow for a number of security-related technologies (e.g. encryption, authentication, password controls, firewalls), supported by trustworthy, market-driven key and security management infrastructures. The OECD has also published guidelines on cryptography and security of information systems addressing the major security and key management issues. There is agreement that legitimate law enforcement access to encrypted data should be permitted. The United States Government, however, continues to oppose the export of strong encryption technologies on law enforcement and national security grounds.

D. Market access issues

1. Telecommunications infrastructure and information technology policies

24. The United States and European Union policy papers both recognize the importance of liberalized telecommunications policies at the national level to the development of an advanced, high-capacity global information network. In particular, the United States position sets out four principles which it believes should be the foundation for government policy:

(a) Private-sector investment should be encouraged by privatizing Government-controlled telecommunication companies;

(b) Competition should be promoted and preserved by introducing competition to monopolistic phone markets and ensuring interconnection at fair prices;

(c) Open access to networks should be guaranteed on a non-discriminatory basis;

(d) Pro-competitive and flexible regulation which keeps pace with technological developments should be implemented via an independent regulator.

25. The four proposals stress that the effective implementation of the WTO Agreement on Basic Telecommunications Services and the Agreement on Information Technology Agreement will have a beneficial effect on the development of the technology infrastructure underlying the global information network. In addition, the United States and the European Union also support the streamlining of product certification procedures through Mutual Reduction Agreements (MRA) that allow for the international recognition of certification awarded by national standards laboratories.

2. Regulation of content on the Internet

26. Across the four sets of positions there is a strong consensus that rules on responsibility for content should be based on a set of common principles so as to ensure a level playing field. The United States and the European Union positions both endorse the view that intermediaries such as network operators and Internet service providers should not be subject to unreasonable or discriminatory rules concerning the content they host or transmit on behalf of their customers. Japan recognizes that some content is either illegal or not acceptable to society but generally discourages government regulation of content. However, the Japanese Government is developing the Platform for Internet Content Selection (PICS), which allows the user to set the desired filtering parameters, in cooperation with a private-sector consortium.

27. The United States has expressed concern over the regulation of advertising on the Internet. Depending upon the country, advertising is subject to a wide variety of restrictions and requirements on support for advertising claims. Some Governments regulate advertising, while others rely on industry self-regulation. The United States Government recommends a "country-of-origin" approach to the regulation of Internet advertising in order to avoid regulatory overlap and possible trade barriers.

28. The United States supports industry self-regulation of content, including the development of rating systems and encourages the development of filtering technologies. It is in favour of international cooperation in the areas of consumer protection and of coordination of policies on content which address the cultural, social and political differences between nations.

3. Development of technical standards

29. In these proposals, there is broad agreement that the private sector should take the lead in the development of open technical standards, in cooperation with Governments and international standards organizations. There is common recognition that technological and commercial inter-operability will be vital in the future development of the global information network. However, it is also true that many Governments themselves mandate standards, which could cause a country to fall behind technologically and result in non-tariff barriers to trade.

4. Access for small and medium-sized enterprises

30. The European Union, Japan and the United States have all been aggressively pursuing the development of programmes to ensure that SMEs can participate fully in the global information network. The programmes include human resource development initiatives to address the skills gap that many SMEs experience in implementing technology within their businesses. The European Union is encouraging the development of a European venture capital industry and has instituted a number of programmes to disseminate information, encourage the development of standards and provide training to SMEs. In addition, the G-7 countries are cooperating within the framework of the "G-7 Global Marketplace for SMEs" to promote policy dialogue with the business community and spotlight promising "test-bed" projects which can provide products and services to support the participation of SMEs in global electronic commerce.

SECTION II - IMPLICATIONS FOR TRADE AND DEVELOPMENT

A. Implications for companies: opportunities and barriers

31. The business opportunities arising from electronic commerce vary significantly from sector to sector - as well as from country to country - depending on the composition of trade, the population of Internet users in the local market place and other factors. In addition, the use of electronic commerce offers a number of non-revenue benefits such as increased efficiency and reduced operating costs.

32. In taking decisions on the extent of their investment in electronic commerce for both domestic and international trading activities, managers should take into account a number of factors, including the following:

(a) The target market and geographical focus of the business;
(b) The products and services currently offered, and those to be offered via electronic channels;
(c) The suitability of Internet-based trade opportunity and supply chain systems as a business development tool;
(d) The availability of the requisite technical knowledge and expertise;
(e) The availability and cost of Internet access/hosting services;
(f) The availability and cost of information on both product markets and counterparties;
(g) The availability of financing, risk management and payment alternatives.

1. Target market and geographical focus of the business

33. The vast majority of SMEs today focus primarily on their local markets. With the possible exception of trading houses, most exporters also serve a significant domestic market in addition to their foreign customers. Expanding into new foreign markets through electronic channels generally requires substantial changes in a company's entire approach to doing business in terms of how it markets its products, how it develops and manages customer relationships, delivers products and provides customer support in the electronic market place.

34. The dilemma for SMEs is that they generally do not have the resources to cope with changes to all aspects of their business at once. Many therefore approach the Internet in an experimental fashion or initially focus on the enhanced data-gathering and communications opportunities available to them to carry out market research or exchange information with customers and business partners.

35. The International Finance Corporation (IFC) recently surveyed 113 firms in 16 developing countries regarding the extent to which they utilized the Internet in their business activities.[*] Over 75 per cent of the respondents either had Internet access or were in the process of having it installed. The most positive features of the Internet that were cited included improved access to business information (most often marketing and technical data) and the enhanced connectivity provided by e-mail, which 89 per cent of respondents were using to communicate with customers. Forty-five per cent of the industrial companies and 100 per cent of the financial firms responding maintained a home

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[*] See J. Daly and R. Miller, "Corporations' use of the Internet in developing countries"; IFC Discussion Paper 35 (1998).

page on the web, although most of the home pages appeared to contain only company and product descriptions and were rarely "commerce-enabled". An Internet survey of small business in the United States[9] found that 19 per cent of small businesses which had online capabilities utilized e-mail to solicit customers and that 45 per cent intended to do so in the coming year. A survey of SMEs in the United Kingdom also indicated that e-mail was a critical tool for them.[10] Thus, many SMEs in developing countries begin their foray into electronic commerce by utilizing e-mail or a simple website as marketing tools, before developing their Internet commerce capabilities if this seems justified by the perceived benefits. This is also the sequence followed by UNCTAD's Trade Point programme, which has built its initial growth around e-mail (ETOs).

2. Products and services offered, via electronic channels

36. Companies in developed economies already have significant experience in determining the viability of selling specific products and services through websites and other electronic channels. Electronic commerce is particularly well suited to products and services where information adds significant value to the products or services being purchased. Books, computers, travel services, software and electronic goods are among the products which have been successfully sold through the Internet, particularly when related information (e.g. book reviews or information on product availability) is also presented.

37. Commodity products are generally not considered suitable for direct sale through the Internet, except through auction, barter or trade lead systems which enable buyers to collect competing bids. A Panos briefing[11] cited the example of a California based company called Earth MarketPlace, which utilized a website to market organic agricultural products (such as teas, coffees and spices) and crafts sourced directly from producers in developing countries to consumers in the United States. The promoters found that the web was not a suitable channel to use for reaching buyers of these products and discontinued their Internet site in favour of other marketing approaches.

3. Suitability of Internet-based trade opportunity and supply chain systems as a business development tool

38. As noted above, many manufactured or commodity products are not well-suited for direct sale through the Internet due to the limited number of buyers who are likely to access the vendor's website, the customized nature of the product (e.g. parts or machines made to customers' blueprint specifications), the commodity nature of the product (e.g. oil or grains) or other marketing constraints. In these cases, participation in a supply chain network or trade opportunity system may be a viable alternative for marketing products, internationally through electronic channels.

39. One such option is UNCTAD's SEAL (Secure Electronic Authentication Link) initiative, which provides a secure electronic environment where international trading partners can identify and qualify trading counterparties, conclude transactions and arrange for trade-related services.

40. Many firms will continue to sell their products overseas through traditional channels, such as local agents and distributors in the target countries. This is often necessary for industrial or office products which consume supplies or require local-based technical services. These channels may

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[9] Http://www.cyberdialogue.com/index_4.htm

[10] *Durlacher Quarterly Internet Report*, Q2/98, London, August 1998.

[11] *The Internet and Poverty*, Panos Media Briefing N° 28, April 1998.

also be a cost-effective alternative to direct exporting where there is significant local market potential or a wider distribution capability is required. In these cases, the trade opportunity networks, as well as the company directory services available through the Internet, are useful resources for identifying and qualifying potential agents and distributors in new markets. If suitable marketing resources are available, such as company directories giving e-mail addresses for purchasing departments, a direct marketing strategy utilizing e-mail may be effective.

4. Availability of the requisite technical knowledge and expertise

41. The lack of in-house technical knowledge and expertise has long been recognized as a major barrier for companies, particularly SMEs in developing countries, which are attempting to develop their international trade and electronic commerce capabilities. With only a few exceptions, both industrialized and developing countries are experiencing shortages of skilled workers and managers in most technological disciplines. Part of the problem stems from the sheer speed of advances in technology, which are outstripping the ability of academic institutions in developing countries, and some developed economies, to adapt their curriculum. A survey of Latin American electronic commerce activities found that virtually no universities in the region offer degree programmes which focus on electronic commerce.[12] The survey concluded that much knowledge transfer in the region was taking place through industrial conferences and seminars sponsored by business associations, technical journals, Internet services providers as well as hardware and software vendors.

42. UNCTAD recently convened an expert meeting which focused on human resource capacity-building in the area of electronic commerce[13]. The UNCTAD secretariat has also undertaken initiatives focused on human resource development, in the area of electronic commerce such as TRADEFORTRADE/eTrade courses.

Section II

43. Many Internet services providers in Latin America provide website design and commerce-enabling services in addition to basic Internet access. It is likely that many firms in developing countries, especially SMEs, will need to outsource their website development and management to specialist firms while this skill shortage persists.

5. Availability and costs of Internet access/hosting services

44. The availability of Internet access is improving throughout most of the developing world, as evidenced by the African connectivity analysis presented in Annex II of document TD/B/COM.3/16 and the regional statistics on Internet user populations presented in Annexes I, IV, V, VI of the same document. However, the cost of access remains a significant hurdle, in Africa in particular. Where reasonably priced Internet access is available, companies worldwide are finding e-mail to be a low cost alternative to telephone and fax communications, which helps to explain why e-mail use by SMEs is quite high, as previously noted.

45. Development and maintenance costs for a website vary enormously, depending on its size and complexity. Simple online catalogues can be designed and hosted for under US$ 1,000 a year, although a commerce-enabled site can be significantly more expensive. Some Trade Points are operated by technology-based companies which provide a variety of technical and training services for their clients as well as hosting online product catalogues on their websites.

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[12] C. Davis, "Electronic commerce in Spanish-speaking Latin America: Actors, issues and challenges" University of New Brunswick, 1998.

[13] See documents TD/B/COM.3/13 and TD/B/COM.3/EM.6/3.

46. The costs of developing and hosting large commerce-enabled websites can run into the hundreds of thousands or millions of dollars. Therefore the size and sophistication of a business website should be balanced against the forecast revenues and return on investment; many large Internet-based retailers, are not expected to turn a profit for their next few years of operations.

6. Availability and cost of information on markets and counterparties

47. One of the primary advantages which SMEs can derive from the Internet is the ability to access a rich variety of business information in a number of key categories. For example, many Trade Points operate websites which provide free or fee-based trade information. In addition, many governments and international agencies involved in trade promotion, such as the United States Commerce Department, Industry Canada, the Japan External Trade Organization and the Organization of American States, provide free access to a great deal of useful information on international markets. Also, many publishers of trade-related information have established websites where their reports can be purchased and downloaded. Some market research companies, such as Euromonitor, will even sell their product market research reports in sections to customers who do not wish to spend thousands of dollars on the full report. The International Trade Centre's website provides hyperlinks to many of these free and fee-based trade information resources.

48. One of the significant challenges in doing business internationally is to determine the creditworthiness of a potential trading partner. Many of the major international credit reporting firms, such as Graydon International and Dun & Bradstreet, now sell credit reports on companies throughout the world via their websites or accept requests for credit checks on specific firms.

49. The cost of certain fee-based information services, particularly in-depth market research reports and credit reports on companies in developing countries, can still pose an obstacle to SMEs. In the long run, however, the ability to easily retrieve useful information on markets and counterparties will help SMEs to better identify their target markets and potential customers, select the appropriate distribution channels, investigate the impact of legal and regulatory requirements in foreign countries on their export activities, and assess the business and credit risks, as well as identify providers of financing, risk management and logistics services.

7. Availability of financing, risk management and payment alternatives

50. The Internet provides firms with a number of benefits in the area of financing, risk management and payment alternatives. First, firms can use the Internet to identify more easily the providers of these services and, in many cases, exchange transactional information online. Also, organizations can commerce-enable their websites to allow their customers to order and pay for products in a secure environment. In addition, initiatives such as Bolero and TradeCard[14] will facilitate the electronic transmission of the trade documents which are normally required before payment can be made.

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[14] See Box 1.

Dematerializing trade documentation: a few examples

Project Bolero was one of the first initiatives undertaken to dematerialize international trade documentation, has the objective of creating an electronic bill of lading, and eventually electronic versions of other trade documents, that will be accepted throughout the global trade community. This effort began in the early 1990s and has now addressed many of the complex legal, financial and technical issues involved in developing a viable approach to dematerialization. Bolero Operations Ltd., which is a joint venture between S.W.I.F.T. and the Through Transport Club (a mutual insurer), is now preparing for the initial launch of the service in late 1998, which will feature secure messaging services via the Internet and a centralized Title Registry for bills of lading that will eliminate the need for paper documents. Participants in the system must all agree to observe the terms of the Bolero Rule Book, which is a contractual mechanism designed to deal with the above-mentioned differences between national trading regulations.

UNCTAD's SEAL Initiative Represents a major effort to develop a secure online environment for firms engaged in international trade. It is a cross certification system providing secure, private and authenticated electronic communications among nations for expediting import/export transactions.

The World Trade Centers Association's TradeCard service is another initiative to facilitate the electronic exchange of valid trade documents, as well as provide trade financing services. This facility, which operates through GEIS instead of the Internet, enables importers and exporters to exchange orders electronically; prepare, transmit and verify shipping-related documents online in a secure environment; and arrange for an import line of credit which is immediately drawn upon when the completed document set is received by the facility's administrator. Currently TradeCard is being marketed to importers in the United States, Canada and France, although it is expected to expand to include the Netherlands, United Kingdom and Latin America in the near future. This service also relies on contractual agreements regarding the validity of electronic documents rather than national commercial regulations.

Asian Sources a specialized publisher of magazines for the electronics industrie, has recently announced a new service which will allow participants in international trade transactions to send and receive EDI-based documents through the Internet.

Online providers of financial services

51. For larger trade transactions, many of the traditional financial and risk management tools, such as letters of credit, factoring and export credit insurance, will continue to be needed. However, many of the leading providers of these services have developed secure online capabilities for communicating with their customers, thus shortening the required lead times and reducing documentary errors.

52. Trade-related financial service providers with a website include:

(a) Trade finance and letters of credit: ABN-AMRO Bank (Netherlands), First Union Bank (United States), Bank of America (United States);

(b) Export credit insurance: American Credit Indemnity (United States), Trade Indemnity (United Kingdom), COFACE (France);

(c) Factoring: Factors Chain International.

Online Payment Systems

53. There are a number of electronic payment systems and security protocols being developed to facilitate secure web transactions. Many are oriented towards retail transactions although some will have applications in business-to-business commerce as well. "Session level protocols for secure communications", are not electronic payment systems as such but mechanisms for transmitting information over the Internet in a secure manner. One of the earliest Internet Security Protocols, the Secure Socket Layer (SSL) protocol, is currently the most popular protocol for the secure transfer of information over the World Wide Web. SSL, which was developed by Netscape, can be used to provide security not just for payments over the Internet but also for other types of server-to-client communications. Its popularity as a secure transmission protocol has allowed it to become the most popular method of conducting financial transactions over the World Wide Web, with over 65,000 SSL-enabled hosts.

Credit and debit cards

54. The major credit card companies are developing their own approach to enabling secure payments over the Internet. The major initiative is the Secure Electronic Transactions (SET) protocol, which was jointly developed by MasterCard and Visa with the backing of Microsoft, Netscape, IBM and a number of other technology firms. The stated goal of this consortium is "to develop a single method that consumers and merchants will use to conduct bankcard transactions in cyberspace as securely and easily as they do in retail stores today". SET is an open standard, multiparty protocol for conducting secure credit card payments over the Internet. The SET specification is based on public key cryptography and digital certificates.

55. Credit card-based payment alternatives using SSL, SET and other technologies are being marketed by Cybercash, Open Market and Checkfree, among others.

Electronic cash and micropayment systems

56. The term "electronic cash" defines a category of electronic payment systems that attempt to replicate the benefits of cash in the off-line world. Micropayment systems are intended to facilitate the online purchase of information and services in very small denominations, usually below the minimum charge amounts permitted by the credit card companies. Typically, these systems require the consumer to purchase the electronic currency from the micropayment vendor or the content provider. This bulk purchase is paid for with a credit card and the currency is then stored in a smart card, or in a "wallet" which resides in the user's hard drive or at the micropayment vendor or content provider's website. Each time a consumer makes a purchase from a content provider, their wallet is debited the appropriate amount of currency. Major providers include Digicash, Mondex and CyberCash. UNCTAD' SEAL Initiative will also incorporate smart card technology in its menu of services.

57. Many of these payment technologies are not yet available in the developing world or face legal and institutional obstacles in their use within certain countries. For example, many credit card providers in developing countries still require a handwritten signature to process a credit card transaction. Also, financial institutions in many parts of the world do not have the capability to support these electronic payment options. Therefore it may be some time before enterprises in these countries can operate fully commerce-enabled websites.

B. Implications for Governments

58. In order to ensure that their citizens can realize the trade and economic benefits accruing from the global information network, governments need to evaluate their legal system, telecommunications and technology environment, trade regulation regime and other key aspects of their commercial economy. Ideally this should be undertaken in partnership with the private sector so that the Government gains a better understanding of the commercial opportunities and constraints facing firms. Mutual understanding of the key issues can then lead to the development of an agreed strategy and prioritized plan of action to address the key issues.

59. Some of these key issues are:

(a) *Promotion of a competitive telecommunications services environment.* The rapid spread of networks, with adequate bandwidth and complete inter-operability, requires a telecommunications environment which features competition in services (and their resale), facilities and infrastructure. An independent telecommunications regulator is usually needed to ensure that competitors can access essential facilities and interconnection services on fair terms and conditions. Without a competitive market and open access to services, the resulting higher costs will inhibit the effectiveness and cost-competitiveness of the local business community in the international market place. Many developing countries may find it more difficult than others to stimulate the emergence of such a competitive market, for example if they do not have the critical market size to attract a sufficient number of operators. Adequate external support and assistance should be considered in such cases by relevant institutions and international donors.

(b) *Development of a suitable legal framework for electronic commerce.* Governments need to adapt their current legal and regulatory framework to address the unique characteristics of electronic commerce and enable business to take full advantage of the opportunities for increased trade. Information technology applications in international trade, featuring electronic documents and secure transmission and authentication methods, have enormous potential to lower operational costs and speed the transaction (and payment) cycle. These benefits translate into increased responsiveness by local exporters to their overseas customers and the ability to compete for business in the fast-paced just-in-time environment which characterizes much of international commerce today. However, when setting up the "global rules" that electronic commerce requires, it will be important to ensure that the specific characteristics and constraints of developing economies are properly understood and addressed.

(c) *Promotion of open standards and inter-operability of networks.* Many Governments are heavily involved in the standard-setting process, which requires significant efforts and expertise to keep in step with technological advances. Where possible, Governments should assess the merits of devolving this responsibility to qualified private-sector bodies. Many key elements within the electronic commerce environment, such as security and electronic payment technologies, are still emerging. Therefore Governments could put local businesses at a disadvantage by endorsing standards which are proprietary or inconsistent with those of their trading partners, and could create barriers to free trade.

(d) *Creation of a duty free area in cyberspace.* Governments need to carefully consider the ramifications before imposing customs duties or new taxes on electronic commerce, particularl, in the case of "virtual" goods. One of the defining characteristics of electronic commerce is the ease with which business and retail consumers can make comparisons as they shop for goods and services; this means that competitive distortions created by tax and tariff barriers become readily apparent. Such barriers can reduce the ability of local firms to win business abroad and could drive technology-based businesses to countries with more favourable tax regimes. At the same time, the disruptive effects which duty-free Internet-based electronic commerce could have on weaker economies should be carefully weighed and, if possible, measured.

(e) *Governments as participant in electronic commerce.* Governments too can realize significant cost savings through the use of the Internet in procurement as well as other aspects of public administration. Governments can act as a catalyst for the development of a critical mass of local consumers and businesses buying and se.ling through electronic channels, which will attract increased private-sector investment in electronic commerce capabilities.

(f) *Participation in international fora on intellectual property rights, commercial regulations, Internet content control and privacy.* There is a need to continue the efforts already under way to safeguard intellectual property rights and harmonize other elements of international trade law. In addition, Governments would benefit from participating in efforts to deal with problems concerning Internet content and the privacy of personal data, since these are emerging areas of international concern which could result in unintended trade barriers if not addressed in a consistent manner.

(g) *Development of support programmes to help enterprises and individuals to become involved in electronic commerce.* SMEs continue to experience difficulties in developing the training and expertise required to participate effectively in international trade and electronic commerce. Governments need to consider the benefits of increasing investment in human resource development in technology and business-related disciplines. Trade Points in many countries have provided these support capabilities, but require more resources to meet the latent demand in most of the economies in which they operate.

Conclusions

60. From the point of view of developing countries, access to participation in electronic commerce raises several types of policy issues, in this context the following could be considered as appropriate policy objectives:

- Offering the proper regulatory, fiscal and economic framework to modify the current cost structure of Internet usage: stimulating awareness among potential users (especially small- and medium-sized enterprises), enhancing competition among Internet Service Providers (ISPs), attracting competence from the more experienced players, and fostering capacity building (including through training) of local players;

- Granting priority to the provision of those electronic-based products and services which are most likely to enhance local trade efficiency (e.g in the area of procurement, customs operations, or payments) or competitiveness (e.g. through the identification of niches, or global dissemination of electronic catalogues or ETOs).

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Commission on Enterprise, Business Facilitation and Development
Third session,
Geneva, 23 November 1998
Item 2 of the provisional agenda

PROVISIONAL AGENDA AND ANNOTATIONS

I. PROVISIONAL AGENDA

1. Election of officers

2. Adoption of the agenda and organization of work

3. The implications of the post-Uruguay Round economic environment for enterprise development, including policy issues relevant to inter-firm cooperation and clustering

4. The impact and relevance of electronic commerce on trade growth and development

5. Provisional agenda for the fourth session of the Commission

6. Other business

7. Adoption of the report of the Commission to the Trade and Development Board.

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II. ANNOTATIONS TO THE PROVISIONAL AGENDA

Item 1 - Election of officers

1. Rule 18 of the rules of procedure of the Main Committees of the Trade and Development Board states that: "At the commencement of the first meeting of each regular session, the Committee shall elect a Chairman, five Vice-Chairmen and a Rapporteur from among the representatives of its members. These officers shall constitute the Bureau of the Committee. In electing the officers, due account shall be taken of the need to ensure an equitable geographical distribution". Moreover, rule 19 indicates that "the Bureau of the Committee shall consist of seven members, including four members from Groups A and C combined, two members from Group B and one member from Group D, referred to in the annex to General Assembly resolution 1995 (XIX) as amended". According to the cycle of rotation, the Chairman of the Commission at its third session shall be a representative of a State member from List B and the Rapporteur from a State member of List D. The five Vice-Chairmen shall therefore be distributed as follows: 4 from List A and C combined and 1 from List B.

Item 2 - Adoption of the agenda and organization of work

2. The provisional agenda in section I above was approved by the Commission on Enterprise, Business Facilitation and Development at its second session (TD/B/45/3-TD/B/COM.3/11, annex IV).

Organization of work

3. The Commission will have five working days, from 23 to 27 November 1998, to complete its work. It is suggested that Monday, 23 November, and the morning of Tuesday, 24 November, be devoted to formal and informal discussions on item 3 of the provisional agenda.

4. The remaining substantive item of the provisional agenda (item 4) will be taken up on the afternoon of Tuesday, 24 November, and on Wednesday, 25 November. Thursday and Friday will be devoted entirely to discussing the outcome of the Commission.

5. The reports of expert meetings will be considered under the appropriate agenda items.

Documentation

TD/B/COM.3/18	Provisional agenda and annotations

Item 3 - The implications of the post-Uruguay Round economic environment for enterprise development, including policy issues relevant to inter-firm cooperation and clustering

6. With a view to expediting substantive discussions at the Commission's session, the secretariat has prepared an issues paper entitled, "Policy issues relevant to inter-firm cooperation, networking and clustering" (TD/B/COM.3/19).

7. The paper is based on the main findings of the expert meetings organized during the year, reports submitted by various experts at those meetings and the research currently undertaken by the UNCTAD secretariat. The paper briefly describes the new competitive environment of the post-Uruguay Round period. That environment is a given and as such is not currently an object of investigation by the secretariat. The paper emphasizes the fact that small and medium-size enterprises are under pressure to innovate and change but do not have the resources to do so. Inter-firm cooperation, networking and clustering can help fill this "resource gap". SMEs can interface internationally via formal partnering arrangements, and domestic firms can interface locally through clustering and networking. The paper explores the main findings of the expert meetings in terms of appropriate policies and support mechanisms for promoting partnering, clustering and networking.

8. Following the decision made at the second session of the Commission, the Expert Meeting on Inter-firm Cooperation was held from 20 to 22 April 1998. The report of the Expert Meeting is contained in document TD/B/COM.3/12-TD/B/COM.3/EM.4/3. The Expert Meeting on Clustering and Networking for SME Development was held 2-4 September 1998. The report of the Expert Meeting is contained in document TD/B/COM.3/14. In taking note of the reports of the Expert Meetings, the Commission may wish to endorse the recommendations contained therein.

Documentation

TD/B/COM.3/19	Policy issues relevant to inter-firm cooperation, clustering and networking
TD/B/COM.3/12- TD/B/COM.3/EM.4/3	Report of the Expert Meeting on Inter-firm Cooperation
TD/B/COM.3/14- TD/B/COM.3/EM.5/3	Report of the Expert Meeting on Clustering and Networking for SME Development

Item 4 - The impact and relevance of electronic commerce on trade growth and development

9. Responding to the request made by the Commission at its second session to undertake analytical work on trade efficiency, the secretariat has prepared two reports in areas related to electronic commerce and development.

10. The report on " Implications for trade and development of recent proposals to set up a global framework for electronic commerce" (TD/B/COM.3/17) examines some of the financial issues (including fiscal aspects), the legal issues (including intellectual property, security and market access aspects) and issues of access for small and medium-sized enterprises presented by the European Union, Japan, the United States and the OECD secretariat in the context of a global framework for electronic commerce, as well as their potential consequences for trade and development.

11. The report "Policy issues relating to access to participation in electronic commerce" (TD/B/COM.3/16) has two main objectives: (1) to assess the current state of connectivity/accessibility of various countries and groups of countries to Internet-based electronic commerce; and (2) to identify main areas in which policy issues need to be addressed in order to enhance access to participation in electronic commerce.

12. Following the decision made at the second session of the Commission, the Expert Meeting on Capacity-building in the Area of Electronic Commerce: Human Resource Development was held from 29 June to 1 July 1998. The report of the Expert Meeting is contained in document TD/B/COM.3/13-TD/B/COM.3/EM.6/3. In taking note of the report of the Expert Meeting, the Commission may wish to endorse the recommendations contained therein.

13. Responding to the request made by the Commission at its second session to report on progress made to finalize the methodology for a trade efficiency assessment (TEAM), the secretariat has prepared an update (TD/B/COM.3/15).

Documents

TD/B/COM.3/17	Implications for trade and development of recent proposals to set up a global framework for electronic commerce.
TD/B/COM.3/16	Policy issues relating to access to participation in electronic commerce.
TD/B/COM.3/13- TD/B/COM.3/EM.6/3	Report of the Expert Meeting on Capacity-building in the Area of Electronic Commerce: Human Resource Development
TD/B/COM.3/15	Trade efficiency assessment methodology (TEAM) an update

Item 5 - Provisional agenda for the fourth session of the Commission

14. The secretariat will submit a draft provisional agenda for the fourth session of the Commission to the meeting for its approval.

Item 6 - Other business

Item 7 - Adoption of the report of the Commission to the Trade and Development Board.

15. The report of the Commission on its third session will be considered by the Trade and Development Board.